



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,229	03/16/2004	Tatsuya Hojo	5576-158	2013
20792	7590	10/07/2010	EXAMINER	
MYERS BIGEL, SIBLEY & SAJOVEC			SOROUSH, ALI	
PO BOX 37428			ART UNIT	PAPER NUMBER
RALEIGH, NC 27627			1617	
MAIL DATE		DELIVERY MODE		
10/07/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,229	<b>Applicant(s)</b> HOJO ET AL.
	<b>Examiner</b> ALI SOROUSH	<b>Art Unit</b> 1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on **16 July 2010**.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) **1-4 and 9-20** is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) **1-4 and 9-20** is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgement of Receipt***

Applicant's response filed on 07/16/2010 to the Office Action mailed on 02/18/2010 is acknowledged.

### ***Claim Status***

Claims 1-4 and 9-20 are pending.

Claims 5-8 are cancelled.

Claims 19 and 20 are newly added.

Claims 1-4 and 9-20 have been examined.

Claims 1-4 and 9-20 are rejected.

### ***Priority***

Acknowledgement is made of this applications claim to priority from Japanese Patent Application 2003-071168 filed on 03/17/2003.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.

3. Ascertaining the differences between the prior art and the claims at issue; and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-4 and 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buschmann et al. (European Patent Application 92117883.6, Published 05/12/1993).

***Applicant Claims***

Applicant claims a sex pheromone sustained release dispenser comprising: three or more sex pheromone substances, wherein each substance is an aliphatic derivative having 10 to 20 carbons, and a first and second polymer chamber and further comprising a polymer membrane, and wherein the first and second polymer chambers are made of the same polymer are made of the same material.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Buschmann et al. discloses a containment device for protecting agricultural crops, wherein said containment device comprises a sex pheromone controlled release dispenser for simultaneously controlling two or more insect pests, wherein said sex pheromone controlled release dispenser comprises two or more polymeric chambers comprising two or more sex pheromones, such as (Z)-9-dodecenyl acetate (Z9-12:OAc), (Z)-9-tetradecenyl acetate (Z9-14:OAc) and/or (Z)-1 1-tetradecenyl acetate (Z11-14:OAc), wherein said Z9-12:OAc has a faster diffusion rate as compared to said

Z9-14:OAc and said Z11-14:OAc, due to the respective physicochemical properties (i.e., molecular weight and vapor pressure) of said sex pheromones, wherein each of said two or more polymeric chambers may be overlaid with the same pheromone permeable polymeric film laminate that may vary in size, thickness and/or shape, so as to simultaneously impart an optimal release rate of each of said two or more sex pheromones, thereby providing for the simultaneous control of said two or more insect pests (page 2, lines 1-15; page 4, lines 4-11; page 8, lines 5-7 and 12-14; page 9, lines 8-11 and 22-24; page 10, lines 1-2; page 12, lines 6-8 and 14-22; page 13, lines 20-23; page 14, lines 18 and 19; page 15, lines 7-12 and 16-18; page 16, lines 1-3 under Example 2; claims 1, 3 and 6-8). Buschmann et al. teach "The design of the dispenser with two or more chambers produces the advantage that two or more pests can be treated at the same time, in a single work operation." (See page 12, Lines 6-8). The dispenser's chambers can be made from materials such as polyhydroxybutyric acid and the chamber is overlaid with a film made from materials such as polyhydroxybutyric acid. (See page 17-18, claims 1-6).

***Ascertainment of the Difference Between Scope the Prior Art and the Claims  
(MPEP §2141.012)***

Buschmann et al. does not anticipate a sex pheromone sustained release dispenser that comprises three or more sex pheromone substances. However, such a dispenser is made obvious.

Bushmann et al. does not anticipate a sex pheromone sustained release dispenser that the chambers and the film cover is made from the same material. However, such a dispenser is made obvious.

***Finding of Prima Facie Obviousness Rational and Motivation  
(MPEP §2142-2143)***

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use more than three sex pheromones. Bushmann et al. teach that it is beneficial to control two or more insect pests with sex pheromones. Therefore, it would have been obvious to one of ordinary skill in the art to add three or more sex pheromones in order to control three or more insect pests.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the same material for creating the chambers and the overlaid film. One would have been motivated to do so because Bushmann et al. teach that the chambers may be made of polyhydroxybutyric acid and the overlaid film can also be made of polyhydroxybutyric acid. For the foregoing reasons the instant invention would have been obvious to one of ordinary skill in the art at the time of the instant invention.

***Response to Applicant's Arguments***

Applicant argues that the controlled release dispenser taught by Bushmann et al. is not made entirely of the same material. Applicant's argument has been fully considered but found not to be persuasive. Bushmann et al. teach that both the chambers and the membrane covering the chambers can be made of polyhydroxybutyric acid. Although, Bushmann et al. does not show a preferred

embodiment wherein the dispenser is made of entirely the same material, the teachings of Bushmann et al. make such a dispenser obvious.

Applicant further argues that Bushmann et al. point out the disadvantages of using a dispenser made of entirely the same material for maintaining a uniform release rate of different sex pheromones for two or more pests. Applicant's argument has been fully considered but found not to be persuasive. Bushmann et al. points out this disadvantage found in the prior art but teach that by varying the size of each chamber, the thickness and shape of the membrane being applied these disadvantages are corrected for.

Applicant further points out that there claims further contrast with the prior art in that solvents are not needed. Applicant's argument has been fully considered but found not to be persuasive. The instant claims have comprising claim language and therefore do not preclude the addition of solvents.

***New Grounds of Rejection Necessitated by Amendment***

Claims 19 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Buschmann et al. (European Patent Application 92117883.6, Published 05/12/1993) as applied to claims 1-4 and 9-18 above, and further in view of Lingren et al. (US Patent 6594947 B2, Published 07/22/2003).

Applicant claims a sex pheromone sustained release dispenser comprising: three or more sex pheromone substances, wherein each substance is an aliphatic derivative having 10 to 20 carbons, and a first and second polymer chamber and further

comprising a polymer membrane, and wherein the first and second polymer chambers are made of the same polymer are made of the same material. In a further embodiment the sex pheromone substances is a mixture of Z-8-dodecyl acetate, Z-8-dodecanol, Z-11-docenyl acetate, 10-methyldodecyl acetate, Z-11-tetradecene-1-ol, and Z-13-icosen-10-one.

The teachings of Buschmann et al. are discussed above.

Bushmann et al. does not show wherein the pheromone substance is a mixture of Z-8-dodecyl acetate, Z-8-dodecanol, Z-11-docenyl acetate, 10-methyldodecyl acetate, Z-11-tetradecene-1-ol, and Z-13-icosen-10-one.

Lingren et al. teach a multi-component device for capturing or repelling insects or insect pests. (See title). Suitable pheromones can include Z-8-dodecyl acetate, Z-8-dodecanol, Z-11-docenyl acetate, 10-methyldodecyl acetate, Z-11-tetradecene-1-ol, Z-13-icosen-10-one, and mixtures thereof. (See column 10, Lines 10-67 and column 11, Lines 1-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bushmann et al. with Lingren et al. because utilizing the pheromones taught by Lingren et al. would give the dispenser of Bushmann et al. more activity against a wider array of insects and insect pests.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALI SOROUSH whose telephone number is (571)272-9925. The examiner can normally be reached on M-F (9am-6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun G. Sajjadi can be reached on (571)272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. S./  
Examiner, Art Unit 1617

/KARLHEINZ R SKOWRONEK/  
Primary Examiner, Art Unit 1631

September 30, 2010